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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/069,465	01/29/2003	John David Windass	SYN-125	3406

22847 7590 10/26/2005

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EXAMINER

WONG, JENNIFER SHIN SHIN

ART UNIT	PAPER NUMBER
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1634

DATE MAILED: 10/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/069,465	Applicant(s) WINDASS ET AL.	
	Examiner Jennifer Wong	Art Unit 1634	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-55 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-55 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-13, 23-24, 34-50, drawn to methods to detect a mutation by assaying for a polymorphism.

Group II, claim(s) 14-20, and 25-33, 52-55 drawn to nucleic acids.

Group III, claim(s) 21 and 22, drawn to proteins.

Group IV, claim(s) 51, drawn to a computer readable medium.

The inventions listed as Groups I-IV do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical feature for the following reasons:

A 371 case is considered to have unity of invention only when there is a technical relationship among those inventions involving one or more of the same or corresponding technical features. The expression "special technical feature" means those technical features that define a contribution which each of the claimed inventions, considered as a whole, makes over the prior art. In the instant application, the linking technical feature of a mutation in a fungal nucleic acid that gives rise to fungal resistance to a strobilurin analogue or related compound was known in the art at the

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time the invention was made. For instance, Kraicz et al. teach isolated cytochrome b nucleic acids comprising Gly143→Ala mutation and teach that this mutation confers (E)-β-methoxyacrylate-resistance (page 61 as cited in IDS). Thus, there is no technical feature linking the recited groups, as would be necessary to fulfill the requirement for unity of invention.

Furthermore, the molecules of groups II, III and IV do not share a corresponding structural property. The special technical feature of the nucleic acids of Group II are the identity of its monomers which are nucleotides which determine its structure, properties and function. On the other hand, the special technical feature of the proteins of Group III are its amino acid monomers, which determine its structure, properties and function which are arranged in a specific 3-dimensional structure. The nucleic acids of invention II may be used in a materially different process such as the synthesis of nucleic acids, and the proteins of invention III may be used for therapeutic purposes or in ligand binding assays. The special technical feature of the computer readable mediums of Group IV are its files that can record and store the nucleic acid and protein sequences.

2. In addition, each invention detailed above reads on patentably distinct inventions drawn to multiple SEQ ID Numbers. According to PCT Rule 13.2 and to the guidelines in Section (f)(i)(A) of Annex B of the PCT Administrative Instructions, all alternatives of a Markush Group must have a common property or activity. Although the chemical compounds share a common structure in that they are nucleic acids (with respect to group I and group II), the compounds are not regarded as being of a similar nature because all of the alternatives do not share a common property or activity. Each of the

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nucleic acids consists of a unique nucleotide sequence, structural and chemical properties, and a distinct specificity of hybridization. The claims encompass 21 wild type nucleic acids (SEQ ID NO: 1-21, Table 3), 22 primers (SEQ ID NO: 22-42, Table 4), and 20 polymorphic nucleic acids (SEQ ID NO: 176-196, pages 16-17). For example, a search for the wild type nucleic acid of cytochrome b comprising of SEQ ID NO: 1-21 would not be co-extensive with a search for primer comprising SEQ ID NO: 22-42 or the nucleic acid with the cytochrome b polymorphism comprising SEQ ID NO: 176-196. Further, a reference rendering SEQ ID NO: 1-21 as anticipated or obvious over the prior art would not necessarily also render SEQ ID NO: 22-42 and 176-196 as anticipated or obvious over the prior art. Similarly, a finding that SEQ ID NO: 1-21 was novel and unobvious over the prior art would not necessarily extend to a finding that SEQ ID NO: 22-42 and 176-196 was also novel and unobvious over the prior art. **In response to the restriction requirement, Applicant must further elect a single nucleic acid selected from the group consisting of SEQ ID NO: 1-21, 22-42, and 176-196 and a mutation corresponding to the elected nucleic acid.** It is further noted that this is a restriction requirement and should **not** be construed as an election of species.

3. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

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4. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer Wong whose telephone number is (571) 272-1120. The examiner can normally be reached on Monday-Friday; 8 AM-4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Jones can be reached on (571)272-0745. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jennifer Wong


CARLA J. MYERS
PRIMARY EXAMINER